

539,291

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
22 July 2004 (22.07.2004)

PCT

(10) International Publication Number
WO 2004/061410 A2

- (51) International Patent Classification⁷: **G01N**
- (21) International Application Number:
PCT/US2003/037090
- (22) International Filing Date:
16 December 2003 (16.12.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/434,075 18 December 2002 (18.12.2002) US

(71) Applicants (for all designated States except US): **CIPHERGEN BIOSYSTEMS, INC.** [US/US]; 6611 Dumbarton Circle, Freemont, CA 94555 (US). **QUEEN ELIZABETH HOSPITAL** [CN/CN]; 30 Gascoigne Road, Kowloon, Hong Kong SAR (CN).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **YIP, Timothy, Tak, Chun** [CN/CN]; 1, Kapok Path, Westwood, Palm Springs, Yuen Long N.T., Hong Kong SAR (CN). **CHO, Chi, Shing**

[—/CN]; Flat 9E, Block 4, The Tolo Place, Sunshine City, Ma On Shan, N.T., Hong Kong SAR (CN). **AU, Siu, Kie** [—/CN]; c/o Department of Clinical Oncology, Queen Elizabeth Hospital, 30 Gascoigne Road, Kowloon, Hong Kong SAR (CN). **YIP, Tai-Tung** [US/US]; 1532 Aster Court, Cupertino, CA 95014 (US). **YIP, Christine, L.** [US/US]; 1532 Aster Court, Cupertino, CA 95014 (US). **YIP, Victor, F.** [US/US]; 33008 Compton CT, Union City, CA 94587 (US).

(74) Agents: **BENT, Stephen, A.** et al.; **Foley & Lardner**, Washington Harbour, 3000 K Street, N.W. Suite 500, Washington, DC 20007-5101 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: **SERUM BIOMARKERS IN LUNG CANCER**

MARKER ID	MW	FRACTION	MARKER ID	MW	FRACTION	MARKER ID	MW	FRACTION	MARKER ID	MW	FRACTION
IM-1	2011	A	IM-37	3893	A	IM-72	54026	A	IM-109	2882	B
IM-2	2030	A	IM-38	3960	A	IM-73	60170	A	IM-110	2967	B
IM-3	2069	A	IM-39	3972	A	IM-75	74372	A	IM-111	2977	B
IM-4	2128	A	IM-40	3984	A	IM-76	75545	A	IM-112	2994	B
IM-5	2146	A	IM-41	4066	A	IM-77	77543	A	IM-113	3031	B
IM-6	2186	A	IM-42	4178	A	IM-78	79507	A	IM-114	3048	B
IM-7	2232	A	IM-43	4287	A	IM-79	89854	A	IM-115	3148	B
IM-8	2277	A	IM-44	4297	A	IM-80	101831	A	IM-116	3168	B
IM-9	2295	A	IM-45	4309	A	IM-81	104301	A	IM-117	3283	B
IM-10	2318	A	IM-46	4484	A	IM-82	125160	A	IM-118	3308	B
IM-11	2411	A	IM-47	4849	A	IM-83	132978	A	IM-119	3332	B
IM-12	2434	A	IM-48	4798	A	IM-84	148099	A	IM-120	3432	B
IM-13	2467	A	IM-49	5104	A	IM-85	2018	B	IM-121	3450	B
IM-14	2482	A	IM-50	5918	A	IM-86	2029	B	IM-122	3581	B
IM-15	2498	A	IM-51	6122	A	IM-87	2144	B	IM-123	3615	B
IM-16	2565	A	IM-52	6192	A	IM-88	2130	B	IM-124	3714	B
IM-17	2574	A	IM-53	6452	A	IM-89	2168	B	IM-125	3730	B
IM-18	2586	A	IM-54	6680	A	IM-90	2184	B	IM-126	3834	B
IM-19	2605	A	IM-55	7768	A	IM-91	2200	B	IM-127	3899	B
IM-20	2722	A	IM-56	8145	A	IM-92	2284	B	IM-128	3969	B
IM-21	2746	A	IM-57	8954	A	IM-93	2299	B	IM-129	3986	B
IM-22	2788	A	IM-58	9312	A	IM-94	2314	B	IM-130	3997	B
IM-23	2855	A	IM-59	9449	A	IM-95	2414	B	IM-131	4013	B
IM-24	2871	A	IM-60	10272	A	IM-96	2428	B	IM-132	4181	B
IM-25	2984	A	IM-61	11603	A	IM-97	2451	B	IM-133	4287	B
IM-26	3030	A	IM-62	13376	A	IM-98	2488	B	IM-134	4311	B
IM-27	3144	A	IM-63	14598	A	IM-99	2483	B	IM-135	4465	B
IM-28	3243	A	IM-64	15190	A	IM-100	2565	B	IM-136	4484	B
IM-29	3273	A	IM-64	68758	A	IM-101	2583	B	IM-137	4579	B
IM-30	3290	A	IM-65	15951	A	IM-102	2597	B	IM-138	4608	B
IM-31	3369	A	IM-66	15172	A	IM-103	2697	B	IM-139	4669	B
IM-32	3445	A	IM-67	15925	A	IM-104	2715	B	IM-140	4747	B
IM-33	3483	A	IM-68	23436	A	IM-105	2740	B	IM-141	4862	B
IM-34	3676	A	IM-69	39794	A	IM-106	2752	B	IM-142	4891	B
IM-35	3779	A	IM-70	44168	A	IM-107	2787	B	IM-143	5033	B
IM-36	3793	A	IM-71	46890	A	IM-108	2865	B	IM-144	5077	B

(57) Abstract: Certain biomarkers and biomarker combinations are useful in a qualifying lung cancer status in a subject. A diagnostic methodology employing these biomarkers and combinations can detect whether a subject has lung cancer.

WO 2004/061410 A2



European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- *without international search report and to be republished upon receipt of that report*